nucleic acid sequence encoding a fatty acid hydroxylase that hybridizes to a nucleic acid probe encoding SEQ ID NO:4 under the following conditions:

(a) hybridization for 16 hours at 65 ^{0}C in 7% SDS, 1 mM EDTA, 0.25 M Na_2HPO_4 (pH 7.2), 1% BSA and

(b) sequential washing at 65 ^{0}C in solutions containing 2X SSC, 1X SSC, and 0.5X SSC in addition to 0.1% SDS,

wherein the oil's hydroxylated fatty acid content is increased compared to the hydroxylated fatty acid content of oil obtained from seeds of the same plant without the recombinant DNA construct.

C'

27. **[AMENDED]** Oil obtained from seeds of a transgenic plant, wherein said plant **comprises** [~~is transformed with~~] a recombinant DNA construct, said construct comprising a nucleic acid sequence encoding a fatty acid hydroxylase that hybridizes to a nucleic acid probe comprising SEQ ID NO:1 or SEQ ID NO:2 or SEQ ID NO:3 under the following conditions:

(a) hybridization for 16 hours at 65 ^{0}C in 7% SDS, 1 mM EDTA, 0.25 M Na_2HPO_4 (pH 7.2), 1% BSA and

(b) sequential washing at 65 ^{0}C in solutions containing 2X SSC, 1X SSC, and 0.5X SSC in addition to 0.1% SDS,

wherein the oil's hydroxylated fatty acid content is increased compared to the hydroxylated fatty acid content of oil obtained from seeds of the same plant without the recombinant DNA construct.

28-30. **[CANCEL]**

31. **[AMENDED]** The oil of claim [~~30~~] **27**, wherein said nucleic acid encodes a fatty acid hydroxylase comprising SEQ ID NO:4.

C2

32-34. **[CANCEL]**

C3

35. **[AMENDED]** The oil of claim [~~34~~] **26**, wherein said nucleic acid sequence comprises any one of the nucleic acids selected from the group consisting of SEQ ID NO:1, SEQ ID NO:2 and SEQ ID NO:3.

36. **[AMENDED]** The oil of any one of claims 26, 27, [~~30,~~] 31, [~~34~~] or 35, wherein said plant is selected from the group consisting of rapeseed, Crambe, *Brassica juncea*, *Brassica nigra*, meadowfoam, Canola, flax, sunflower, safflower, cotton, cuphea, soybean, peanut, coconut, oil palm and corn.

37. **[Previously Added]** The oil of claim 36, wherein said oil is pressed or extracted from the seeds of the transgenic plant.

38. **[Previously Added]** The oil of claim 37, wherein said oil is a component of a paint, varnish, synthetic polymer, resin, lubricant or cosmetic.

39. **[Previously Added]** The oil of claim 36, wherein the oil comprises one or more hydroxylated fatty acids.

40. **[Previously Added]** The oil of claim 39, wherein said one or more hydroxylated fatty acids is selected from the group consisting of ricinoleic acid, 12-hydroxyoctadec-*cis*-9-enoic acid (12OH-18:1$^{cis\Delta 9}$); lesquerolic acid, 14-hydroxy-*cis*-11-icosenoic acid (14OH-20:1$^{cis\Delta 11}$); densipolic acid, 12-hydroxyoctadec-*cis*-9,15-dienoic acid (12OH-18:2$^{cis\Delta 9,15}$); auricolic acid, 14-hydroxy-*cis*-11,17-icosadienoic acid (14OH-20:2$^{cis\Delta 11,17}$); hydroxyerucic acid, 16-hydroxydocos-*cis*-13-enoic acid (16OH-22:1$^{cis\Delta 13}$); hydroxypalmitoleic acid and 12-hydroxyhexadec-*cis*-9-enoic (12OH-16:1$^{cis\Delta 9}$).

41. **[Previously Added]** The oil of claim 40, wherein said hydroxylated fatty acids are free fatty acids, the acyl carrier protein (ACP) esters, coenzyme A (CoA) esters, the salts of these acids, the glycerolipid esters, the triacylglycerol esters, the wax esters, the estolides or the ether derivatives of these acids.